NEW YORK STATE
DEPARTMENT OF TRANSPORTATION

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1220 Washington Avenue, State Campus, Albany, New York 12226

March 17, 1970

TO: MAIN OFFICE ENGINEERING STAFF
ALL REGIONAL DIRECTORS
ALL INSPECTION AGENCIES
MANUFACTURERS AND SUPPLIERS OF FIELD COAT AND SHOP COAT PAINTS
STEEL FABRICATION SHOPS

Attached is a recently revised copy of Materials Method N.Y. 6 dated February, 1970 covering "SAMPLING AND STOCK LOT CONTROL OF FIELD COAT AND SHOP COAT PAINT." This revised Method supersedes Materials Method N.Y. 6 "Sampling and Control of Paints for Field Application" dated May 1, 1968 and Materials Method N.Y. 6.1 "Sampling and Control of Paints for Shop Application" dated November 1, 1962. Materials Method N.Y. 6.11 "Shop Paint Application Samples" dated December 17, 1962 is still in effect and should be used in any applicable situation.

The purpose of this revised Method is to institute tank sampling and stock lots of both shop and field coat paints at paint manufacturers plants. Provisions have been made available for "can sampling" at fabrication shops if it should be necessary to use this procedure; however, this is no longer the recommended procedure and should be phased-out as soon as possible. The Method is designed to give a maximum validity to the samples taken and will encourage the establishment of Department approved stock lots at manufacturing plants. It thereby eliminates the costly shipping of untested paints to fabrication shops and the subsequent delay while the paint is being approved for Department work.

The provisions of this revised Method are effective with sampling calls made for these products on and after April 15, 1970.

HARRY H. McLEAN
Director of Engineering Materials

DEJP:rmo
FILE: 28
Attachment

Materials Method N.Y. 6
February, 1970

NEW YORK STATE

DEPARTMENT OF TRANSPORTATION

Materials Bureau

"SAMPLING AND STOCK LOT CONTROL of FIELD COAT AND SHOP COAT PAINTS"

I. INTRODUCTION

This method describes specific procedures for the SAMPLING AND STOCK LOT CONTROL OF FIELD COAT AND SHOP COAT PAINTS manufactured for Department projects. It encompasses an inventory control system whereby material is accepted in stock lots for eventual shipment to Department projects. This procedure benefits Department projects by assuring that acceptable material is available for incorporation into project work. The control system is implemented by sampling and testing material in stock lots as it is formulated and canned. After sampling and proper identification, through the use of Department seals, the material is tested by the Department. If found acceptable, it is identified as such and released for shipment to Department projects as required.

AN ALTERNATIVE PLAN OF CAN SAMPLING IS ALSO PRESENTED, BUT THIS IS TO BE USED ONLY IN STEEL FABRICATION SHOPS AND ONLY IF THEY ARE NOT ABLE TO OBTAIN PAINT ALREADY APPROVED AT A MANUFACTURING PLANT.

II. DEFINITIONS

1. Manufacturer

A company actually engaged in the production of paint products at a given location.

NYSDOT
Library
50 Wolf Road, POD 34
Albany, New York 12232

2. Fabrication Shop

A company engaged in Fabricating and initially painting metal structures for Department projects.

3. Department

The New York State Department of Transportation.

4. Materials Bureau

A facility of the New York State Department of Transportation located in Albany, New York.

5. Inspection Authority

An office designated by the Materials Bureau as responsible for inspection control on behalf of the Department at specific manufacturers and fabrication shops.

6. Plant Inspector

An individual employed by the Inspection Authority and approved by the Materials Bureau, to function on inspection assignments at the manufacturers on behalf of the Department.

7. Shop Inspector

An individual employed by the Inspection Authority and approved by the Department to function on inspection assignments on behalf of the Department at fabrication shops.

8. Project Inspector

An individual assigned by the Department's Project Engineer to function on inspection assignments at the project.

9. Batch of Paint

A batch shall consist of a specific specification paint which is canned at one time from a single pouring tank. This may be the combination of two or more mix tanks that have been completely blended in the pouring tank, but may never represent more than a single pouring tank, filled once. Each batch of paint is assigned a Batch Number by the manufacturer.

DEFINITIONS (continued)

10. Lot

A lot shall consist of one batch of paint only.

11. Containers

Strong metal containers for packaging paint products furnished in five gallon, thirty gallon or fifty-five gallon sizes. Any other type of packaging must have prior approval of the Materials Bureau.

a. Five Gallon Pails are the typical "paint pail" style using covers with or without lugs with no openings or spouts and incorporating a lever lock ring closer surrounding the cover. The lever lock ring closer shall have a lever handle closer with matching holes to allow the application of a sealing wire to which the Department's metal seals can be affixed.

b. Thirty Gallon and Fifty-five Gallon Drums are open head style with no bung holes. Open head drums must have bolt or lever lock ring closers, with matching holes for the application of a sealing wire.

12. Seals

Tape and metal devices, as described below, to insure content security of packages used for paint products. These seals are furnished to the Inspector by the Department.

a. Red Tape Seal

A red tamper proof tape seal imprinted "N.Y.S. SAMPLED."

b. Green Tape Seal

A green tamper proof tape seal imprinted "N.Y.S. ACCEPTED."

c. Red Metal Seal

A red metal tamper proof seal imprinted "N.Y.S. SAMPLED."

DEFINITIONS (continued)

d. Green Metal Seal

A green tamper proof seal imprinted "N.Y.S. ACCEPTED."

13. Forms

The following forms are published and issued by the Department for use by the Materials Bureau and Inspection Authorities.

a. BR-240, Sample and Acceptance Transmittal

This form transmits the Inspector's sample information to the Materials Bureau and upon validation conveys acceptance action to the Inspector. Detailed instruction for proper completion and transmittal are contained in Materials Method N.Y. 18.1.

b. BR-241, Transmittal Envelope

This is a heavy duty envelope used to contain the form BR-240.

14. Sample

The sample shall be as follows:

a. At the Manufacturing Plant

Two one-quart cans taken during the canning process.

b. At the Fabrication Shop

One-quart samples taken at a frequency defined in the sample table below:

"Sampling Table"

Lot Size (No. of Containers)	Number of Containers Sampled
1-15	3
16-25	4
26-90	6
91-150	8

Lot rejection will occur when one or more of the samples taken fails to meet specifications.

III. EVIDENCE OF ACCEPTABILITY

ACCEPTED PAINTS CAN NOT BE APPLIED ON DEPARTMENT WORK AFTER 18 MONTHS FROM THE DATE OF MANUFACTURE EXCEPT FOR ALUMINUM PAINT WHICH CAN NOT BE APPLIED AFTER SIX MONTHS FROM THE DATE OF MANUFACTURE, UNLESS OTHERWISE STIPULATED BY DEPARTMENT SPECIFICATION.

1. At Manufacturing Plant

   A green copy of Form BR-240 in the possession of the Inspector, properly noted with the word "accepted" and validated by the Materials Bureau.

2. At the Fabrication Shop

   a. For paint sampled at the fabrication shop - a green copy of Form BR-240 in the possession of the Inspector, properly noted with the word "accepted" and validated by the Materials Bureau.

   b. For paint previously accepted at the manufacturer's plant.

      (1) Each container sealed with one red metal seal and one green metal seal on the lever lock closer or bolt closer.

      (2) Presence of the following identifying data on each container:

Name of the Product	Date of Manufacturer
Item Number	Date of Acceptance
Lot Number	Date of Expiration of Acceptance
Batch Number	Weight per Gallon
Test Number	

Name and location of Manufacturer

3. At Project Location

   Same evidence of acceptability as for "paint previously accepted at manufacturer's plant." (See 2b above)

IV. STEPS IN PROCEDURE

Part A - Tank Sampling of Paint at the Manufacturing Plant

Part B - Can Sampling Paint at the Fabrication Shop

A. SAMPLING PAINT AT THE MANUFACTURING PLANT

Responsibility	Action
Manufacturer	1. Plans to manufacture a batch of paint for Department work.
	2. Assigns a batch number to the batch in accordance with definition of batch number.
	3. Notifies the Inspection Authority designated by the Department at least 48 hours in advance of the time he plans to can the batch of paint.
	a. If an Inspection Authority has not already been designated, the manufacturer should contact the Materials Bureau (see address, page 15)
Inspection Authority	4. Assigns lot number to the batch of paint.
	a. Consecutive lot numbers starting with "1" at the beginning of each calendar year regardless of type or item are to be used.
	5. Schedules an Inspector to be at the manufacturing plant at the time designated for the canning of the paint.
Manufacturer	6. Manufacturers the batch of paint.
Plant Inspector	7. Arrives at the manufacturing plant and visually inspects the pouring tank to insure that all paint to be canned comes from that tank.

STEPS IN PROCEDURE (continued)

Responsibility	Action
Plant Inspector (cont'd)	a. If the pouring tank contains paint from two or more mix tanks, verifies that the pouring tank contains mixing equipment.
	8. Visually determines the quantity of paint in the mixing tank.
	9. Insures that the batch number for the batch to be canned is either already marked on the top or side of the containers, or the proper equipment is available to mark the cans as soon as they are filled.
Manufacturer (With the Inspector Observing)	10. Cans the batch of paint.
	a. If not previously done, indelibly marks or labels the top or side of each can with the batch number.
	b. Applies bolt or level lock ring closers to each can.
Plant Inspector	11. Draws two one-quart samples directly from the pouring tank pouring spout, one after approximately one-third and the other after approximately two-thirds of the pour is completed.
	a. Sample should never be drawn from the first few or the last few gallons of a pour.
	b. Samples should be drawn directly from the pouring spout into clean one-quart friction top "paint" cans and the cover sealed with safety clips. Cans and clips should be supplied by the manufacturer.
	12. Identifies the samples by marking the following information on the side of each can.
	a. Lot Number
	b. Batch Number

STEPS IN PROCEDURE (continued)

Responsibility	Action
Plant Inspector (continued)	c. Item Number
	d. Manufacturer's name and location
	13. Seals each container in the lot by fastening a red metal seal to the ends of a wire that passes through holes in the bolt or lever lock closer.
	a. No containers may be sealed unless the batch number appears.
	14. Determines that the total quantity canned is reasonably close to the amount originally observed in the mixing tank.
	15. Completes Form BR-240 according to Materials Method N.Y. 18.1.
	a. List in Box # 16, the size(s) of the containers in the lot and the number of each size.
	16. Packages samples, including Form BR-240 enclosed in a BR-241 envelope and forwards to the Materials Bureau.
	a. If transmitted by means not authorized by the Materials Bureau, such as air freight, expense must be borne by the manufacturer. Box # 16 of the BR-240 shall be noted, "Samples sent by Supplier." The sample containers must be sealed by the Inspector, using red tape seals.
	17. Makes the necessary entries in his records as to manufacturer, item, quantity, etc.
Materials Bureau	18. Performs required test and accepts or rejects the lot on the basis of the test results.

STEPS IN PROCEDURE (continued)

Responsibility		Action
Materials Bureau (continued)	19.	Indicates action on, and validates, Form BR-240.
	20.	Issues green copy and yellow copy of Form BR-240 to Inspection Authority.
		a. Telephone requests to the Materials Bureau in advance of the normal notification of action will be honored only when received from an Inspector at the expense of the manufacturer.
Inspection Authority	21.	Receives green and yellow validated copies of Form BR-240 marked "accepted" or "rejected" from the Materials Bureau.
	22.	Retains the yellow copy and advances the green copy of Form BR-240 to the Inspector.
	23.	Notifies the manufacturer of action taken by the Materials Bureau and provides acceptance information for completion of labeling.
		a. If paint is REJECTED: on a subsequent routine visit to the plant, the Inspector will remove all red metal seals and attached wire from each container.
	24.	Arranges for an Inspection call to check labeling and to seal acceptable containers.
Plant Inspector	25.	Checks that the manufacturer has indelibly labeled each container with the following information:

Name of Product	Date of Manufacturer
Item Number	Date of Acceptance
Lot Number	Date of Expiration of Acceptance
Batch Number	
Test Number	Weight per gallon (as noted on the acceptance)

STEPS IN PROCEDURE (continued)

Responsibility

Plant Inspector (continued)

NOTE: At the manufacturers convenience, labeling may be accomplished previous to, or coincident, with the application of green seals.

26. Attaches the green metal seal to the same wire that is already holding the red metal seal.

Manufacturer

27. Makes shipments from accepted stock lots without further documentation or supervision of the Inspector.

    a. Paint accepted for Department work may only be released for other uses with the consent of the Inspector.

28. Maintains a record of shipment for all Department accepted materials. These records should include Department item number, test number, lot number, quantity, date shipped and shipping destination.

29. Furnish the Inspection Agency, within 10 days of the last business day of each month, a letter describing the shipment details of all Department inspected lots from which material was shipped during the previous month. This letter must contain the Department Item Number, Lot Number, Test Number, Quantity Shipped and Destination, including Department Contract number if available.

Plant Inspector

30. Uses the letter(s) on a subsequent routine visit to the plant to conduct random checks of the remaining inventory.

31. Notifies the Materials Bureau of any disagreement between the information in the letter, the manufacturer's records and the observed inventory.

STEPS IN PROCEDURE (continued)

Responsibility		Action
Project Inspector or Shop Inspector	32.	Receives paint shipment and satisfies himself that the required seals as described under "Evidence of Acceptability" on page No. 5 are intact on each container.
	33.	Records required label information according to Department's procedures.
	34.	Confirms acceptability of the paint immediately prior to application by examining the Date of Expiration of Acceptance appearing on each container.

B. CAN SAMPLING OF PAINT AT THE FABRICATION SHOP

Responsibility		Action
Fabrication Shop	1.	Notifies the Shop Inspector when a shipment of paint arrives.
Shop Inspector	2.	Examines the paint containers to determine that the containers are not from a previously accepted stock lot.
		a. If paint is previously accepted (See Section 2b, Pg. 5, under Evidence of Acceptability), no further action is necessary, except recording the required acceptance information and the selecting of application samples as directed under Materials Method N.Y. 6.11.
	3.	Determines that the paint is packaged in containers which conform to definition of containers.
	4.	Examines the labeling of each container for the following minimum information and to assure that the paint is from one batch.

STEPS IN PROCEDURE (continued)

Responsibility	Action
Shop Inspector (continued)	a. Name of Item b. Item Number c. Batch Number d. Date of Manufacturer e. Name of Manufacturer f. Address of Manufacturer
	5. Counts the number of containers.
	6. Consults the Sample Table below for the number of containers to be sampled.

Lot Size (# of Containers)	Number of Containers Sampled
1-15	3
16-25	4
26-90	6
91-150	8

	7. Numbers each container by actually marking each, or by mentally designating a number to each.
	8. Consults the random number table for the numbers of the containers to be sampled. The table and instructions for its use are on page No. 18.
	9. Designates which containers are to be sampled.
Fabrication Shop (under the supervision of the Shop Inspector)	10. Thoroughly mixes each container to be sampled with a mechanical mixer, dispersing all sediments and separated material.
Shop Inspector	11. Takes a one-quart sample from each "mixed" container and places each sample in a clean one-quart friction top "paint" can.

STEPS IN PROCEDURE (continued)

Responsibility	Action
Shop Inspector (continued)	a. Any vessel used to take a sample must be free of solvents or paint.
	12. Covers each sample can and seals with safety clips.
	a. Sample cans, covers and safety clips shall be supplied by the Fabrication Shop.
	13. Marks the side of each sample can with the batch number, item number, Fabrication Shop name and location, and the serial number of the BR-240 to accompany the sample.
	14. Seals each container in the lot by fastening a red metal seal to the ends of a wire that passes through a hole in the bolt or lever type ring closer.
	15. Completes Form BR-240 according to Materials Method N.Y. 18.1. Include in box # 16 the following.
	a. The size(s) of the containers in the lot and the number of each size.
	b. The number of samples.
	c. The words, "SHOP SAMPLE."
	NOTE: Batch Number will be used in place of Lot Number for paint sampled at fab shops, therefore, Box # 7 may be left blank.
	16. Packages samples, including Form BR-240 enclosed in a BR-241 envelope and forwards all to the Materials Bureau.
	a. If transmitted by means not authorized by the Materials Bureau, such as air freight, expense must be borne by the Fabrication Shop. Box # 16 of the BR-240 shall be noted "Samples sent by Supplier." The sample containers must be sealed by the Inspector, using red tape seals.

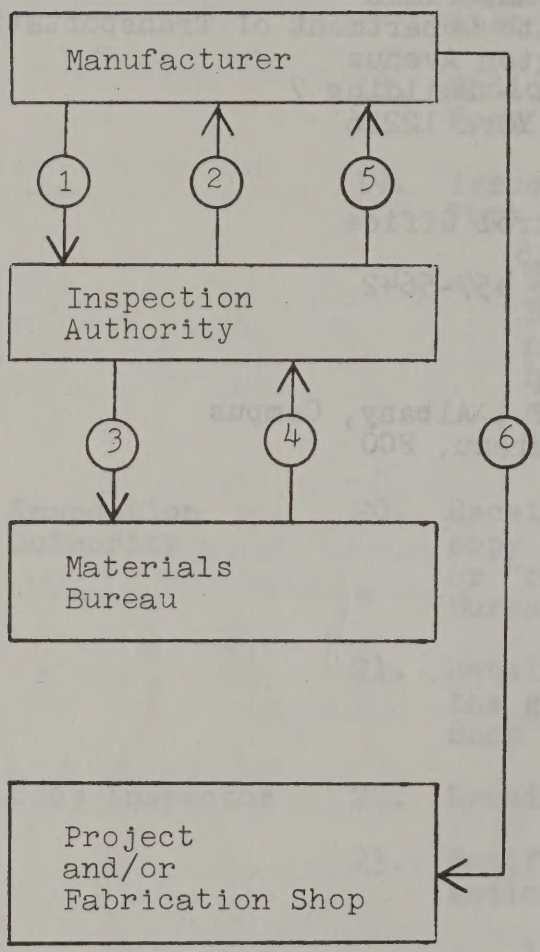
STEPS IN PROCEDURE (continued)

Responsibility		Action
Materials Bureau	17.	Performs required test and accepts or rejects the lot on the basis of the test results.
	18.	Indicates action on, and validates, Form BR-240.
	19.	Issues green copy and yellow copy of Form BR-240 to Inspection Authority.
		a. Telephone requests to the Materials Bureau in advance of the normal notification of action will be honored only when received from an Inspector at the expense of the Fabrication Shop.
Inspection Authority	20.	Receives green and yellow validated copy of Form BR-240 marked "accepted" or "rejected" from the Materials Bureau.
	21.	Retains the yellow copy and advances the green copy of Form BR-240 to the Shop Inspector.
Shop Inspector	22.	Receives green copy of Form BR-240.
	23.	Notifies the Fabrication Shop of the action taken by the Materials Bureau.
		a. If the paint is rejected removes all red metal seals and attached wires from the containers in the lot.
Fabrication Shop (Under the supervision of the Inspector)	24.	Labels the container with the test number, date of acceptance, date of expiration of acceptance and weight per gallon.
Shop Inspector	25.	Seals the accepted containers by attaching a green metal seal to the same wire already holding the red metal seal.

TO CONTACT THE MATERIALS BUREAU -

Write To:	Harry H. McLean, Director Engineering Materials New York State Department of Transportation 1220 Washington Avenue State Campus - Building 7 Albany, New York 12226
Telephone:	Product Control Office Area Code 518 Phone Number 457-5642
TWX:	710-441-8221 N.Y.S. D.o.T., Albany, Campus Materials Bureau, PCO

FLOW CHART – PAINT INSPECTION AT MANUFACTURERS PLANT



1. Notifies Inspection Authority of lot to be sampled.
2. Samples lot and identifies by using RED seals.
3. Submits sample for test using form BR-240.
4. Issues acceptance.
5. Notifies manufacturer of acceptance and identifies using GREEN seals and labels.
6. Ships to Project or Fabrication Shop for incorporation into Department work.

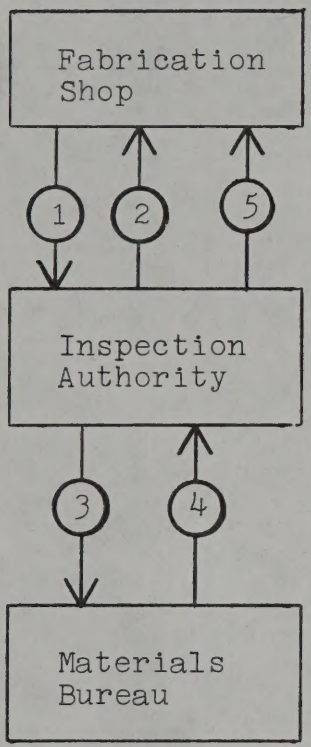
FABRICATION SHOP OR PROJECT
EVIDENCE OF ACCEPTABILITY

Intact RED seals

Intact GREEN seals

Completed labels

FLOW CHART — PAINT INSPECTION AT FABRICATION SHOP



1. Notifies Inspection Authority of lot to be sampled.
2. Samples lot and identifies by using RED seals.
3. Submits sample for test using form BR-240.
4. Issues acceptance.
5. Notifies Fabrication Shop of acceptance and identifies using GREEN seals and labels.

*** Paint is applied to Department work at the Fabrication Shop.

EVIDENCE OF ACCEPTABILITY AT THE FABRICATION SHOP

Green copy of BR-240 marked "accepted" and validated by the Materials Bureau.

INSTRUCTIONS:

1. Determine number of digits to be used that correspond with number of units to be sampled. (e.g. 500 units - use last three digits of each number in the table - 9685)

2. Starting anywhere in the table, select the units to be sampled by reading the numbers consectively that do not exceed total number of units in the lot.

(EXAMPLE - 500 units to be sampled with 5 samples needed. Presume you start on line 27, column 3 (#685). Since 685 is larger than the number of units in lot, go down col. 3 selecting numbers 64, 32, 187, 37 and 110. When counting units in lot, those units corresponding to these numbers would be sampled.)

RANDOM NUMBER TABLE

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.	1305	1189	5731	3968	5606	5084	8947	3897	1636	7810
2.	0422	2431	0649	8085	5053	4722	6598	5044	9040	5121
3.	6597	2022	6168	5060	8656	6733	6364	7649	1871	4328
4.	7965	6541	5645	6243	7658	6903	9911	5740	7824	8520
5.	7695	6937	0406	8894	0441	8135	9797	7285	5905	9539
6.	5130	7851	8464	6789	3938	4197	6511	0407	9239	2232
7.	2961	0551	0539	8288	7478	7565	5581	5771	5442	8761
8.	1428	4183	4312	5445	4854	9157	9158	5218	1464	3634
9.	3666	5642	4539	1561	7849	7520	2547	0756	1206	2033
10.	6543	6799	7454	9052	6689	1946	2574	9386	0304	7945
11.	9975	6080	7423	3175	9377	6951	6591	8287	8994	5532
12.	4866	0956	7545	7723	8085	4948	2228	9583	4415	7065
13.	8239	7068	6694	5168	3117	1586	0237	5160	9585	1133
14.	8722	9191	3386	3443	0434	4586	4150	1224	6204	0937
15.	1330	9120	8785	8382	2929	7089	3109	6742	2468	7025
16.	2296	2952	4764	9070	6356	9192	4012	0618	2219	1109
17.	3582	7052	3132	4519	9250	2486	0830	8472	2160	7046
18.	5872	9207	7222	6494	8973	3545	6967	8490	5264	9821
19.	1134	6324	6201	3792	5651	0538	4676	2064	0584	7996
20.	1403	4497	7390	8503	8239	4236	8022	2914	4368	4529
21.	3393	7025	3381	3553	2128	1021	8353	6413	5161	8553
22.	1137	7896	3602	0060	7850	7625	0854	6565	4260	6220
23.	7437	5198	8772	6927	8527	6851	2709	5992	7383	1071
24.	8414	8820	3917	7238	9821	6073	6658	1280	9643	7761
25.	8398	5224	2749	7311	5740	9771	7826	9533	3800	4553
26.	0995	8935	2939	3092	2496	0359	0318	4697	7181	4035
27.	6657	0755	9685	4017	6581	7292	5643	5064	1142	1297
28.	8875	8369	7868	0190	9278	1709	4253	9346	4335	3769
29.	8399	6702	0586	6428	7985	2979	4513	1970	1989	3105
30.	6703	1024	2064	0393	6815	8502	1375	4171	6970	1201
31.	4730	1653	9032	9855	0957	7366	0325	5178	7959	5371
32.	8400	6834	3187	8688	1079	1480	6776	9888	7585	9998
33.	3647	8002	6726	0877	4552	3238	7542	7804	3933	9475
34.	6789	5197	8037	2354	9262	5497	0005	3986	1767	7981
35.	2630	2721	2810	2185	6323	5679	4931	8336	6662	3566
36.	1374	8625	1644	3342	1587	0762	6057	8011	2666	3759
37.	1572	7625	9110	4409	0239	7059	3415	5537	2250	7292
38.	9678	2877	7579	4935	0449	8119	6969	5383	1717	6719
39.	0882	6781	3538	4090	3092	2365	6001	3446	9985	6007
40.	0006	4205	2389	4365	1981	8158	7784	6256	3842	5603
41.	4611	9861	7916	9305	2074	9462	0254	4827	9198	3974
42.	1093	3784	4190	6332	1175	8599	9735	8584	6581	7194
43.	3374	3545	6865	8819	3342	1676	2264	6014	5012	2458
44.	3650	9676	1436	4374	4716	5548	8276	6235	6742	2154
45.	7292	5749	7977	7602	9205	3599	3880	9537	4423	2330
46.	2353	8319	2850	4026	3027	1708	3518	7034	7132	6903
47.	1094	2009	8919	5676	7283	4982	9642	7235	8167	3366
48.	0568	4002	0587	7165	1094	2006	7471	0940	4366	9554
49.	5606	4070	5233	4339	6543	6695	5799	5821	3953	9458
50.	8285	7537	1181	2300	5294	6892	1627	3372	1952	3028

From D. B. Owen's Handbook of Statistical Tables, 1962, Addison-Wesley, Reading, Mass., courtesy of the U. S. Atomic Energy Commission.

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